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| APPLICATION NO | D. 1                  | FILING DATE      | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.      | CONFIRMATION NO. |
|----------------|-----------------------|------------------|----------------------|--------------------------|------------------|
| 10/785,680     | 10/785,680 02/24/2004 |                  | Roy C. Krohn         | KRO 0114 PUS2            | 8380             |
| 22045          | 7590                  | 08/19/2004       |                      | EXAM                     | INER             |
| BROOKS         | S KUSHM               | AN P.C.          | MCCLENDON, SANZA L   |                          |                  |
|                | VN CENTE<br>-SECOND   | · <del>-</del> - | ART UNIT             | PAPER NUMBER             |                  |
| 2              | IELD, MI              |                  | 1711                 |                          |                  |
|                |                       |                  |                      | DATE MAIL ED: 08/19/2004 |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

| Application No.   Application No.   Application No.   Application   App |   |   |   |  |  |  |  |  |
|---|---|---|---|--|--|--|--|--|
| ## Deriod for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE of this communication appears on the cover sheet with the correspondence address.  Partial Ministry Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE of THIS COMMUNICATION.  - Extensions of time may be available under the positions of 37 CFR 1.136(a). In no event, however, may anyly be limitely filled  - If No period for reply is position above, the maintainus statistical yeared will apply and will explain a fill the period for reply is position above, the maintainus statistical yeared will apply and will explain a fill the period for reply is position above, the maintainus statistical yeared will apply and will explain a fill the period of the period of the communication.  - If No period for reply is position above, the maintainus statistical yeared will apply and will explain a fill the period of the period of the period of the communication.  - If No period for reply is position above, the maintainus after the maintainus data and the statistical year of the period of the communication.  - If No period for reply is position after the ministry of the statistic period of the communication.  - If No period for reply is position than the membra after the mainting date of this communication.  - If No period for reply is position than the membra after the mainting date of this communication.  - If No period for reply is position than the membra after the mainting date of this communication.  - If No period for reply is position to the membra and the statistic period of the communication.  - If No period for reply is position and an accordance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Explaination.  - Application of Claims  - Application of Claims  - Application Papers  - See The specification is objected to by the Examiner.  - Application Papers  - Proof ty under 35 U.S.C. § 119  - The dev |   | Application No.   | Applicant(s)  |  |  |  |  |  |
| Sarza L McClendon   1711  - The MAILING DATE of this communication appears on the cover sheet with the correspondence address.  - The MAILING DATE of this communication appears on the cover sheet with the correspondence address.  - A SHORTENED STATUTORY DERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - If the period for reply appelled above is less than thirty (30) stays, a reply within the stablety retrieval imply and will replace 100) (MCNITS from the mailing date of this communication.  - If the period for reply appelled above is less than thirty (30) stays, a reply within the stablety retrieval imply and will replace 100) (MCNITS from the mailing date of this communication.  - If the period for reply appelled above is less than thirty (30) stays, a reply with the stablety retrieval imply and will replace 100) (MCNITS from the mailing date of this communication.  - If the period for reply appelled above is less than thirty (30) stays, a reply well will replace the stable of this communication.  - If the period for reply appelled above is less than thirty (30) stays, a reply well will replace the stable and the state of the communication.  - If the period for reply appelled above is less than thirty (30) stays, and application.  - A poll of the above claim (s)   |   | 10/785,680  | KROHN, ROY C.   |  |  |  |  |  |
| Period for Repty  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  E-translated from may be available under the provisions of 3 CRF 1.13(fb). In on ownf, however, may a reply be timely filled after 5X (b) MONTHS from the maining date of this communication.  E-translated from may be available under the provisions of 3 CRF 1.13(fb). In on ownf, however, may a reply be timely filled after 5X (b) MONTHS from the maining date of this communication.  Failure to reply within the soci or estandard period office or reply will, by statutor, provision to become AIAMONTEO (SI U.S. C. § 13.5). Available to reply within the soci or estandard period for reply will, by statutor, cause the application to become AIAMONTEO (SI U.S. C. § 13.5). Available to reply within the soci or estandard period for reply will, by statutor, cause the application to become AIAMONTEO (SI U.S. C. § 13.5). Available to reply within the soci or estandard period for reply will, by statutor, cause the application to become AIAMONTEO (SI U.S. C. § 13.5). Available to reply within the soci or estandard period for reply will, by statutor, cause the application to become AIAMONTEO (SI U.S. C. § 13.5). Available to reply within the soci or reply will be considered timely. Available to reply within the soci or reply will be considered timely. Available to reply will be sent to reply and will be considered timely. Available to reply will be reply will be reply will be considered to reply will be re | Office Action Summary   | Examiner  | Art Unit  |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MALING DATE OF THIS COMMUNICATION.  - Internation of time may be available under the provisions of 30°CRT 1.138(a). In no event, however, may a roply be finely filed.  - It the period for roply as evaluable under the provisions of 30°CRT 1.138(a). In no event, however, may a roply be finely filed.  - It the period for roply as evaluable under the provisions of 30°CRT 1.138(a). In no event, however, may a roply be finely filed.  - It has period for roply as evaluable under the filed of 30°CRT (1.048).  - It has period for roply as evaluable under the second of the studency minimum of timy (00) days will be considered films).  - It has period for roply as evaluable under the second of the studency minimum of timy (00) days will be considered films).  - It has period for roply as evaluable under the second of the studency minimum of timy (00) days will be considered films).  - It has period for roply as evaluable under the maling date of this communication, even if timely filed, may reduce any second part of the scommunication.  - Any may reduced by the Student second part of the scommunication, even if timely filed, may reduce any second part of the scommunication.  - Any may reduced any second part of the scommunication of the scommunication.  - The scommunication is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Exparte Quayle, 1935 C.D. 11, 453 O.G. 213.  - Disposition of Claims  - Application is objected to by the Examiner.  - Claim(s)   |   |   |   |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MALLINIO DATE OF THIS COMMUNICATION.  - Extensions of time many be available under the previous of 37 CFL 136(a). In no event, however, may a reply be timely filed  - Extensions of time many be available under the previous of 37 CFL 136(a). In no event, however, may a reply be timely filed  - Extensions of time many be available under the previous of 37 CFL 136(a). In no event, however, may a reply be timely filed  - Extensions of the provided provided above is listed than through one of the part of the file of the provided of the provided by the common data statutory previous alloys and vide and state). Any reply excellent by the Official star than throe months of or the mailing date of this communication, even if timely filed, may reduce any common guident term adjustment. See 37 CFR 1.704(b).  - Status  1) Responsive to communication(s) filed on 24 February 2004.  2e) This action is FINAL. 2b) This action is non-final.  3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 1-19 is/are pending in the application.  4a) Of the above claim(s) is/are allowed.  - Size and the provided transport of the maintenance of the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 1-19 is/are rejected.  7) Claim(s) is/are allowed.  6) Claim(s) is/are objected to by the Examiner.  10) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are allowed.  Application Papers  9) The specification is objected to by the Examiner.  Application Papers  11) And or drawing shoot(s) including the correction is required |   |   |   |  |  |  |  |  |
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| 2a)  This action is FINAL. 2b)  This action is non-final.  3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4)  Claim(s) 1-19 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5)  Claim(s) is/are allowed. 6)  Claim(s) 1-19 is/are rejected. 7)  Claim(s) is/are objected to. 8)  Claim(s) are subject to restriction and/or election requirement.  Application Papers  9)  The specification is objected to by the Examiner. 10)  The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in aboyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some c) None of: 1. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Pattent Drawing Review (PTO-848) 3) Hoffmenton Disclosure Statement(s) (PTO-1449 or PTO/St/08) 5) Notice of Informal Patent Application (PTO-152)  | Status  |   |   |  |  |  |  |  |
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| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date 5) Notice of Informal Patent Application (PTO-152)  | <ul> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> </ul>  |   |   |  |  |  |  |  |
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| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date  Notice of Informal Patent Application (PTO-152)   |   | 4) ☐ Interview S  | Summary (PTO-413)   |  |  |  |  |  |
|   | <ul> <li>2) Notice of Draftsperson's Patent Drawing Review (P</li> <li>3) Information Disclosure Statement(s) (PTO-1449 or</li> </ul>   | TO-948) Paper No(s<br>PTO/SB/08) 5) Notice of In  | s)/Mail Date<br>formal Patent Application (PTO-152)   |  |  |  |  |  |

Art Unit: 1711

### DETAILED ACTION

The following is a quotation of the second paragraph of 35 U.S.C. 112:
 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2. Claims 4 and 9-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- 3. With regards to claims 4 and 9-10, it is deemed by the examiner that because they depend from claim 1, which includes the compound of formula I claims 4 and 9-10 also include the compound of formula I. Claims 4 and 9-10 do not expressly disclose the requisite amount of the compound of formula I, and, as such, is not clear if applicant is intending the remaining amount of ferromagnetic composition to be the compound of formula I. For example, in claim 4 the amount of the compound of formula I would need to be between 79 and 24-wt% to have the total composition amount equal 100%. Or is applicant intending the amount for the compound of formula I to be a specified amount, such as found on page 8 of the instant specification. Clarification is requested. For the advancement of prosecution, the examiner is interpreting the claims such that the remaining amount (i.e., the amount that totals to 100%) of the composition to be the compound of formula I—please refer below.

## Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. Claims 9-10 and 13-19 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the composition as disclosed by claim 13, does not reasonably provide enablement for the compositions as disclosed by claim 13 having any amounts other than those amounts as disclosed in the specification—see page 6 for the powder and photoinitiator, page 7 for the epoxy acrylate, page 8 for compound of formula I, and page 4 for the acrylated oligomer mixture. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use/make the invention commensurate in scope with these claims. While applicant is enabled for a composition comprising an epoxy acrylate oligomer, an isobornyl acrylate monomer, a photoinitiator, and a magnetic powder, in addition, comprising an acrylated aliphatic oligomer mixture and a flowpromoting agent, applicant is not enabled for said composition in any amounts other than the amounts found in the specification. It appears that the claims are outside the "metes and bounds" of applicant's specified inventive composition—see pages 4-8. With regards to claims 9-10 (see above), it is deemed by the examiner that these claims also outside the " mete and bounds" of applicants specified composition as described above.

#### Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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6. Claims 1-8 and 11-19 are rejected under the judicially created doctrine of double patenting over claims 1-11 of U. S. Patent No. 6,716,893 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: The instant claims 1–2 and 4 corresponds to claim 1 of 6,716,893 when R2 of formula I is cycloalkyl (claim 1), isobornyl (claim 2) and found in amounts up to 24% of the composition. The examiner is interpreting the amount of the ethylenically unsaturated compound of formula I to be the remainder of the composition (i.e., the amount that allows for the total to be 100%) since the amount is expressly disclosed in the instant claims (see above 112, 2<sup>nd</sup> rejection), therefore the amount of formula I in instant claim 4 would be from 79 to 24%, wherein at least 24–25% is within the metes and bounds of applicant's claimed range in claim 1 of 6,716,893. The compositional components as found in instant claims 3 and 5–8 correspond to claims 2–6 of 6,716,893. The composition of instant claims 13–19 is encompassed by claims 1–3, 5, and 7–11 of 6,716,893.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application, which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

## Claim Rejections - 35 USC § 102/35 USC § 103

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 9. Claims 1-3, 5, 7-8, 12-17 and 19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Heil et al (4,666,783; 4,559,118, and 4,557,813). All line and column information is taken from Heil et al (4,666,783).

Heil et al teaches radiation curable compositions for magnetic recording media. Said composition comprises a binder matrix obtainable from electron beam curing of a mixture of from 60 to 100% by weight of a polyurethane acrylate polymer and from 0.0 to 40% by weight of an acrylate monomer and/or an acrylate prepolymer and/or an N-vinyl monomer. Said urethane acrylate anticipates claims 5 and 15. Said acrylate prepolymers can be acrylated epoxy resins obtained from a reaction product of an epoxy resin with acrylic acid—see column 9, lines 65 to the end. This anticipates claims 12 and 19. Said acrylate monomers can be mono-functional and/or polyfunctional, wherein isobornyl acrylate is taught—see column 10, line 25. appears to anticipate formula I of claims 1-2. Said N-vinyl monomers can be found in column 10, lines 40-49. In addition, Heil et al teaches adding a flow-improver in amounts from 0.1 to 0.5% by weight. This appears to anticipate claims 7-8 and 16. To obtain the magnetic recording media a magnetic material, such as gamma-iron (III) oxide, is dispersed in a solution of the radiation curable binder. Said gamma-iron oxide anticipates claims 3 and 14. Heil et al teaches that said magnetic dispersion is coated onto a non-magnetic substrate. Once coated but before being dried on the substrate, the coating can be exposed to heat for 15 to 120 second to orient the magnetic particle in the intended recording direction. Heil et al further teaches that said orientation could also be preformed by exposure to electron beam and/or UV radiation, wherein when UV is used a photoinitiator needs to be added. The teaching of adding the photoinitiator to the composition is deemed to anticipate applicant's instant claims 1 and 13.

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Per examples 5, 6, and 9, Heil et al teaches a composition comprising a urethane acrylate, an epoxy acrylate, and an N-vinyl monomer and/or an acrylate monomer, wherein, per examples 13 and 15, Heil et al teaches adding the magnetic particles and/or the flow improver. The examiner deems that Heil et al teaches the instant invention because Heil et al teaches a compositions comprising an epoxy acrylate resin, an acrylated aliphatic oligomer, and ethylenically unsaturated compound having the formula I, a photoinitiator and a magnetic particles, wherein it would have been obvious to substitute the N-vinyl monomer and/or the polyfunctional acrylate monomer with isobornyl acrylate because Heil et al teaches them as equivalents for increasing the reactivity of the composition—see column 4, lines 58-59. Therefore it is deemed that the reference reads on the instant invention of claims 1-3, 5, 7-8, 12-17, and 19.

#### Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sanza L McClendon

Examiner